

## SUCCESSFUL USE OF TUBE-FEEDING IN CAPTIVE NEWBORN LESSER GUITTARFISH (*ZAPTERYX BREVIROSTRIS*)

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### **Abstract**

Distributed along the coastal waters from eastern Brazil to north-eastern Argentina, the lesser guitarfish (*Zapteryx brevirostris*) is classified as vulnerable by the International Union for Conservation of Nature (IUCN). There is little information on the captive breeding of elasmobranchs, development, and survival of newborns. Knowing that prolonged periods of starvation may lead a series of health issues, forced feeding protocols may be useful in the rearing of newborns with prolonged inappetence, preventing dehydration and extreme body weight loss. Considering that at this time there is no data available on the use of tube-feeding for the lesser guitarfish, the objective of this work was to demonstrate, for the first time, the use of enteral feeding for captive newborns. Animals were submitted on consecutive attempts of feeding with live *Artemia* sp., amphipods, fish fillets, cocked mussel, and frozen shrimp, all suitable for the species' mouth size. Feeding was attempted in the mornings and late afternoons when animals showed to be more active. After 15 days of starvation and a weight loss above 10%, tube-feeding was performed once a week. For tube-feeding, a urethral tube n#6 was cut to a 2,3 cm probe and attached to a 1 mL syringe, which was introduced through the mouth, reaching the stomach. In order to avoid traumatic injuries, only a small portion of the probe was introduced into the mouth, and it was then expected that the neonates' swallowing reflexes would lead to the probe through the esophagus. Weight gain was observed for all animals submitted to this protocol. After the death of one individual from causes unrelated to tube-feeding, the absence of traumatic injuries in the gastrointestinal tract and the presence of food content in the stomach and intestinal segments was observed, reinforcing the possibility of using the technique, even in such small and delicate species.